

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/051780 A2

(51) International Patent Classification⁷: **H01M 8/04**

Tetsuya [JP/JP]; 39-5-202, Miyamoto-cho 2-chome, Minami-ku, Yokohama-shi, Kanagawa 232-0016 (JP).

(21) International Application Number:
PCT/JP2003/015455

(74) Agents: MIYOSHI, Hidekazu et al.; 9th Floor, Toranomon Daiichi Building, 2-3, Toranomon 1-chome, Minato-ku, Tokyo 105-0001 (JP).

(22) International Filing Date: 3 December 2003 (03.12.2003)

(25) Filing Language: English

(81) Designated States (*national*): CN, KR, US.

(26) Publication Language: English

(84) Designated States (*regional*): European patent (DE, FR, GB).

(30) Priority Data:
2002-351274 3 December 2002 (03.12.2002) JP

Published:

— without international search report and to be republished upon receipt of that report

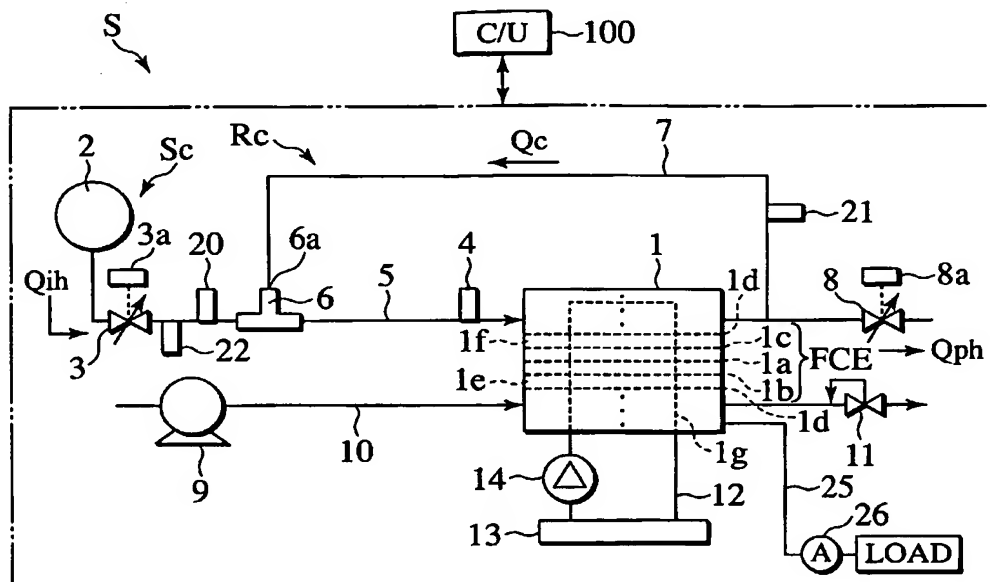
(71) Applicant (*for all designated States except US*): NISSAN MOTOR CO., LTD. [JP/JP]; 2, Takara-cho, Kanagawa-ku, Yokohama-shi, Kanagawa 221-0023 (JP).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): KAMIHARA,

(54) Title: FUEL CELL SYSTEM



(57) Abstract: A fuel cell system which includes: a fuel cell (1); a supply system (Sc) for supplying fuel gas to the fuel cell (1); a recirculation system (Rc) for recirculating unused fuel gas from the fuel cell (1), in which the fuel gas therein may contain nitrogen; a purge valve (8) for purging nitrogen contained in the fuel gas in the recirculation system (Rc); and a controller (100) for adjusting a valve opening of the purge valve (8) so that a nitrogen concentration of the fuel gas in the recirculation system (Rc) is kept constant.